

REMARKS

Applicants have amended claims 14-19, 24-27, 29, 39, 41-46, 48-51, and 57-60 to differently recite the invention. Claims 14-19, 21-39, 41-46, 48-52, and 54-62 are currently pending in the application. Of these, claims 61-62 are withdrawn from consideration.

In the pending Office Action, claims 14-19 and 23-26 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-38 of U.S. Patent No. 6,992,026 (the '026 patent) in view of Manor (Manor, U.S. Published Patent Application No. 2001/0035401); claims 57-60 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite; claims 14, 18-19, 21-23, 26-34, 36-37, 39, 41, 45-46, 48, 50-52, and 54-56 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoekstra et al. (Hoekstra, U.S. Patent No. 6,420,678) in view of Manor; and claims 15-17, 24-25, 42-44, and 49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoekstra in view of Manor and further in view of Piwczyk et al. (Piwczyk, U.S. Patent No. 6,376,797). Applicants respectfully traverse these rejections, at least for the following reasons.

As mentioned, claims 57-60 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have now amended claims 57-60, and submit that these claims are now in full compliance with 35 U.S.C. § 112, second paragraph. Accordingly, reconsideration and withdrawal of the rejections applied to claims 57-60 under this section of the statute are respectfully requested.

Applicants traverse the rejections applied to independent claims 19 and 46, and the claims dependent on these independent claims, at least because the applied references do not

disclose or render obvious any of Applicants' claimed methods incorporating the formation of a substrate modified region only within the substrate and a laminate part modified region within the laminate part, wherein the substrate modified region formed only within the substrate and the laminate part modified region formed within the laminate part are separate from each other. In this regard, Hoekstra does not disclose or render obvious any laminate part, and to the extent it can even be argued that Manor teaches a laminate part, any such laminate part does not have a laminate part modified region formed therein. Moreover, Piwczyk does not make up for these deficiencies in these references.

Thus, even if Hoekstra and Manor (with or without Piwczyk) were to be combined in the manner proposed in the Office Action, the resulting combination would still not encompass the formation of a substrate modified region only within the substrate and a laminate part modified region within the laminate part, wherein the substrate modified region formed only within the substrate and the laminate part modified region formed within the laminate part are separate from each other. Accordingly, for at least these reasons, Applicants submit that independent claims 19 and 46, and the claims depending thereon, patentably distinguish over the references applied to these claims, whether taken alone or viewed in combination.

Applicants traverse the rejections applied to independent claims 23, 39, 48, and 51, and the claims dependent on these independent claims, at least because the applied references do not disclose or render obvious any of Applicants' claimed methods comprising irradiating a substrate with laser light while positioning a light-converging point within the substrate, so as to form a modified region only within the substrate, the modified region forming a starting point region for cutting the substrate inside the substrate at a predetermined distance from a laser light incident

face of the substrate; and providing a laminate part on a front face of the substrate after forming the starting point region. In other words, in these claims, after formation of the modified region functioning as a starting point region for cutting the substrate within the substrate, the laminated part is formed on a surface of the substrate. This is in contrast to Hoekstra, which discloses that any modified regions are formed in the substrate after which the substrate in which any modified regions are formed is cut. In other words, the formation of any modified regions in Hoekstra is always followed by the cutting of the substrate.

Thus, even if a laminated part were to be formed on the substrate of Hoekstra, as proposed in the Office Action as being a modification suggested by Manor, such formation would come after cutting of the substrate rather than before it. In turn, this means that the laminated part would be formed on the cut sections of the substrate after cutting, making it impossible to form laminated parts each having a semiconductor device, for example. Moreover, Piwczyk does not make up for these deficiencies in these references. Thus, Applicants submit that one skilled in the art would not seek to combine Hoekstra and Manor (with or without Piwczyk) in the manner proposed in the Office Action, and that even if these references were combined, the resulting combination would still lack the formation of the laminated part on the surface of the substrate after formation of the modified region functioning as a starting point region for cutting the substrate within the substrate. Accordingly, for at least these reasons, Applicants submit that independent claims 23, 39, 48, and 51, and the claims depending thereon, patentably distinguish over the references applied to these claims, whether viewed alone or in combination.

Applicants traverse the rejections applied to independent claims 14-18, 24-26, 41-45, 49, and 50, and the claims dependent on these independent claims, at least because the applied references do not disclose or render obvious any of Applicants' claimed methods comprising the application of stress to the object, after completion of forming the substrate modified region, which causes cutting of the substrate and the laminate part along a line along which the object is to be cut so that a fracture generated in a thickness direction of the substrate from the starting point region reaches a front face of the laminate part and a rear face of the substrate. In accordance with this methodology, for example, a laminate part disposed on the face of the object may be assuredly and accurately cut together along with the object itself. The Office Action appears to appreciate that this methodology is not taught or rendered obvious either by Hoekstra or Piwczyk. Nonetheless, the Office Action appears to say that Manor makes up for this deficiency. Applicants respectfully disagree.

In Fig. 4 of Manor, for example, a first laser source 302 is used to cut layer 106 and a second laser source 332 is used to cut substrate 100. See Manor at column 6, lines 37-44, for example. In other words, in Manor, a separate laser process is required in order to cut the purported laminate part. Hoekstra is likewise deficient because Hoekstra uses heating/rapid cooling to apply thermal stress in order to cause cutting, which means that if there were a laminate part formed on the substrate of Hoekstra, then it would likely be damaged due to the stress resulting from such heating/rapid cooling. Stated differently, if a laminate part were applied to the teaching of Hoekstra, in the manner which the Office Action says is obvious in view of Manor, the resulting combination would be functionally deficient in that any laminate formed within the proposed combination of Hoekstra and Manor would likely suffer intolerable

damage. This is especially true if the substrate in this type of combination incorporates any semiconductor device.

As can be seen, even if references such as Hoekstra and Manor (viewed with or without Piwczyk) were to be combined in the manner proposed in the Office Action, the resulting combination would still not contemplate or incorporate cutting of both the substrate and the laminate part in response to the application of stress to the object, after completion of forming the substrate modified region, so that a fracture generated in a thickness direction of the substrate from the starting point region reaches a front face of the laminate part and a rear face of the substrate, as recited in Applicants' independent claims 14-18, 24-26, 41-45, 49, and 50. Accordingly, Applicants submit that these independent claims, and the claims depending thereon, patentably distinguish over the references applied to thereto, whether viewed alone or in combination.

In view of the foregoing, Applicants respectfully submit that independent claims 14-19, 23-26, 39, 41-46, and 48-51, and the claims dependent thereon, patentably distinguish over the applied references of record, whether taken alone or viewed in combination. Accordingly, reconsideration and withdrawal of the rejections applied to the claims in the pending Office Action are respectfully requested. Furthermore, since withdrawn claims 61 and 62 depend from what are believed to be allowed claims, Applicants respectfully request that these claims be rejoined in the application and allowed as well.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance, and respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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